WHY INDONESIA WANTS TO GO NUCLEAR

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objectives

to examine the behavior of the state in post-Suharto Indonesia

to observe state-society relations in the context of Indonesian democracy

to explore the political dimensions of technology
THE STATE

NUCLEAR DISCOURSE

CIVIL SOCIETY

economic, technological, and ideological interests

distrust risks and safety environment local issues
THE ORIGINS OF INDONESIA’S NUCLEAR PROGRAM
Indonesia entered the nuclear age

1954
Commission for Radioactivity Research
1958
Institute for Atomic Energy (LTA)
1965
Agency for Atomic Energy (BATAN)
Triga-Mark II reactor in Bandung
Built in 1961
The U.S.’s Atom for Peace program
THE NEW ORDER REGIME

March 1970
Indonesia signed NPT
July 1978
Indonesia ratified NPT

France and West Germany gave assistance for uranium exploration in Kalimantan and Sumatera
Cobalt radiator-equipped research center in Pasar Jumat, Jakarta
Built in 1966
Mostly for agricultural purposes
Kartini reactor in Yogyakarta
Built in 1979
Siwabessy reactor in Serpong, Jakarta
Built in 1987
30-MW multipurpose research reactor
ROAD TO NUCLEAR ENERGY
FIRST ATTEMPT

1972
IAEA-assisted initiative
BATAN and PLN

Joint Preparatory Committee for Nuclear Power Construction
1975
Fourteen possible locations for NPP

1979
Five candidates along coastline of Java
Tanjung Pujul, Muria, Lasem, Situbondo, Parigi

The committee’s recommendation:
8-18 reactors to be built
between 1978 and 1982
Report submitted to Suharto

President Suharto says: NOT NOW
SECOND ATTEMPT

1980-1983
Geological Study (NIRA of Italy)
Muria is the most stable spot
4,000 MW from nuclear type of reactor
late 1980s
Suharto gave a green light for NPP
rapid industrial growth
uncertainty of oil prices
1990
Indonesia would “go nuclear”
Feasibility study by Mitsubishi’s NEWJEC
12 600-MW reactors
Constructed in 1996, Operating by 2003

1994
Suharto said: NOT YET
Habibie: nuclear last option
1997

THE ASIAN CRISIS
DECEMBER 1999
Comprehensive Assessment of Different Energy Sources (CADES) 2001-2002

“a decision to move forward with nuclear power needs to be taken soon”
PRESIDENTIAL REGULATION NO. 5 YEAR 2006
NATIONAL ENERGY POLICY

ENERGY MIX GOAL 2025

- Natural Gas: 28.57%
- Oil: 51.66%
- Coal: 15.34%
- Hydro Power: 3.11%
- Geothermal Power: 1.32%

National (Primary) Energy Mix of 2025 (BaU Scenario)

- Oil: 41.7%
- Coal: 34.6%
- Natural Gas: 20.6%
- Power Plant: 1.9%
- Mini/micro Hydro Power: 0.1%

National Energy Mix 2025 (Presidential Regulation Scenario)

- Oil: 20%
- Natural Gas: 30%
- Coal: 33%
- NRE: 17%

OPTIMIZING ENERGY MANAGEMENT

- Biofuel: 5%
- Geothermal Power: 5%
- Biomass, Nuclear, Hydro Solar Power, Wind Power: 5%
- Coal Liquefaction: 2%
NEW AND RENEWABLE ENERGY DEVELOPMENT
(In accordance with the Presidential Regulation No. 5/2006)

- New and Renewable Energy: 17%
- Biofuel: 5%
- Geothermal: 5%
- Coal Liquefaction: 5%
- Other New and Renewable Energy: 5%

- Biomass
- Nuclear
- Hydro
- Solar
- Wind
- CBM
ROADMAP OF NUCLEAR POWER DEVELOPMENT

PLTN = Nuclear Power Generator Plant

2000
Planning of National Nuclear Energy Option

2005
Decision to construct PLTN

2010
Tender PLTN 1&2
Construction of PLTN-1

2015
Construction of PLTN-2
Tender of PLTN 3&4
Operation of PLTN-2
1000 MWe
Operation of PLTN-1

2020
Construction PLTN-3
Operation of PLTN-4
3000 MWe

2025
Operation of PLTN-4
4000 MWe
rationale for GO NUCLEAR

economic
target of growth

industrial
soaring demands for re-industrialization

ideological
national pride and the state’s power
Indonesia will have nuclear power

Minister of Energy
nuclear is safer than smoking
We need to “think outside the box”
the post-Suharto context

weak state

vis-a-vis

strong society
WEAK STATE
the state losing capacity

fragmented politics

decentralized authority

neoliberal policies
STRONG SOCIETY
emerging civil society power

associational life

political participation

new social capital

self-organizing capacity
hmmm...nukleir

pro-nuclear technocrats, bureaucrats, politicians, business, researchers

no nuclear!!

anti-nuclear alliance activists, students, scientists, local business, scientists, local politicians

THE STATE ELEMENTS

CIVIL SOCIETY GROUPS
ORGANIZED RESISTANCE

diverse civil society groups

solid network of anti-nuclear alliance

shared agendas of actions

counter narratives production

people mobilization
DECLINING TRUST

The failure to provide safe public facilities

Corruption and weak institutional capacities of the government

Poor disaster mitigation systems

Conflicts between the central and local governments after decentralization
MOBILIZED DISCOURSES

The government has no capacity to handle high-risk technology (plane crashes, sidoarjo mudflow)

NPP is too risky and too costly to build

NPP creates dependency

NPP is not a solution!

Energy system should be decentralized

Development paradigm should be shifted
ANTI-NUCLEAR ELEMENTS

environmental NGOs

Jakarta-based:
WALHI and Greenpeace Indonesia

Jepara-based:
Masyarakat Reksa Bumi (MAREM)
ANTI-NUCLEAR ELEMENTS

quasi-permanent coalition

national:
Indonesian Anti-Nuclear Society (MANUSIA)

local:
Central Java Anti-Nuclear Alliance
The Guard of Muria
United People of Balong
SYMPATHIZING ELEMENTS

other groups/individuals

scientists and academics

religious leaders

business groups and labor unions

politicians

local and national press
ENERGI NUKLIR = ENERGI BERBAHAYA

GREENPEACE
PETANI KUDUS
TOLAK PLTN
CONCLUSION

Nuclear energy seems inevitable pushed by scientific bureaucracy and the global trend

Democratic conditions and public distrust to the government

Delays are very likely due to strong public resistance
thank you